

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 1-6 have been amended and new claims 8 and 9 have been added. No new matter has been submitted.

Reconsideration of the allowability of the claims is respectfully requested.

Claims 1-9 are pending and under consideration.

CLAIM AMENDMENTS AND NEW CLAIMS

To further differentiate from the relied upon Lee, EP 1,217,466, which has an Aluminum fusing roller with an outer protective Teflon layer, Applicants have amended independent claim 1 to set forth "a fusing roller apparatus with a rubber fusing roller having a protective outer layer," and have further added new dependent claim 8 which defines the outer protective layer as being Teflon.

The outstanding Office Action, on page 5, emphasizes that the Examiner is modifying the outer protective layer of Lee to switch from the preferred Teflon to silicone rubber.

Conversely, applicants have further differentiated the claimed rubber fusing roller from the outer protective layer.

Thus, now, a modification of Lee to have a silicone rubber protective layer, rather than the preferred Teflon protective layer, still would not disclose the claimed rubber fusing roller having a protective outer layer.

In addition, new independent claim 9 sets forth that the heating element is in direct contact with the rubber fusing roller, which is contrary to the disclosure of Lee which requires the Aluminum fusing roller to be in contact with the heating element.

REJECTIONS UNDER 35 USC 103

Claims 1-3 and 7 stand rejected under 35 USC § 103(a) as being obvious over Lee, EP 1,217,466, in view of Namiki et al., U.S. Patent No. 4,284,875. This rejection is respectfully traversed.

By way of review and as an example, independent claim 1 sets forth:

"[a] A fusing device for an electrophotographic image forming apparatus, the device comprising:

- a fusing roller apparatus with a rubber fusing roller having a protective outer layer;
- a heating pipe disposed in the center of the fusing roller apparatus;

a heating element disposed on the outer surface of the heating pipe; and
a pressing roller which closely adheres paper passing between the pressing roller and the rubber fusing roller to the rubber fusing roller."

As noted above, Lee details that the fusing roller should have an Aluminum fusing roller 212, that has excellent heat transferring properties, and an outer protective Teflon layer 211, such that the heat from the heating pipe can be instantaneously transferred. See Lee on paragraph [0080], requesting a "metallic fusing roller having excellent conductivity, so that the surface of the fusing roller can be instantaneously heated up to a target fusing temperature to fix toner images that have been transferred to a print paper."

Lee similarly provides examples where the fusing roller is copper, in paragraph [0074], or aluminum with a higher hardness than aluminum spacers 213' between coils of heating unit 213, in paragraph [0060].

The Office Action indicates that it would have been obvious to use the silicone rubber as the outer protective layer 211 of Namiki et al. to have "excellent surface lubrication."

However, as noted above, independent claim 1 also claims an outer protective layer, such that the Office Action's proffered modification of Lee's outer protective layer 211 to be silicone rubber, still would not disclose or suggest the claimed rubber fusing roller.

Therefore, for at least the above, it is respectfully requested that this rejection of claim 1 be withdrawn and claim 1 be allowed. In addition, for at least similar rationale, it is respectfully submitted that claims depending from independent claim 1 are also in proper condition for allowance.

Claims 4-5 stand rejected under 35 USC 103 as being obvious over Lee, in view of Namiki et al., and further in view of Hirst et al., U.S. Patent No. 6,512,913, and claim 6 stands rejected under 35 USC 103 as being obvious over Lee, in view of Namiki et al., and further in view of Moriyama, JP 59-204071. These rejections are respectfully traversed.

It is respectfully submitted that none of Hirst et al., nor Moriyama, disclose or suggest the deficient features from any combination of Lee and Namiki et al. Therefore, it is respectfully submitted that claims 4-6 are allowable for at least the above reasons.

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CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
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